WHAT IS CLAIMED AS NEW AND DESIRED TO BE SECURED BY LETTERS PATENT OF THE UNITED STATES IS:

1. A method for a computerized analysis of a texture of image data, comprising:

extracting features from the image data;

applying the extracted features to a classifier; and

determining a fractal characteristic of the image data based on an output of the classifier.

2. The method according to Claim 1, further comprising:

associating the fractal characteristic with a risk of a disease.

3. The method according to Claim 1, wherein the extracting step comprises:

determining the features at multiple scales.

4. The method according to Claim 1, wherein the extracting step comprises:

determining the features from an area of a region of interest of the image data based on a box-counting method.

5. The method according to Claim 1, wherein the extracting step comprises:

determining the features from a volume of a region of interest of the image data based on a general Minkowski model.

6. The method according to Claim 1, wherein the applying step comprises:

applying the features to a linear discriminant analysis.

7. The method according to Claim 1, wherein the applying step comprises:

applying the features to an artificial neural network.

8. The method according to Claim 1, wherein the determining step comprises:

calculating a fractal dimension from a slope.

9. The method according to Claim 1, wherein the determining step comprises:

calculating a fractal dimension from at least two slopes.

10. The method according to Claim 1, wherein the determining step comprises:

determining a multi-fractal characteristic of the image data.

11. A system configured to process image data to determine a fractal characteristic of the image data, comprising:

a feature extraction mechanism that extracts features from the image data;

a classifier mechanism that applies the extracted features to a classifier; and

a fractal determination mechanism that determines a fractal characteristic of the image data based on an output of the classifier mechanism.

12. The system according to Claim 11, further comprising:

a fractal association mechanism that associates the fractal characteristic to a risk of a disease.

13. The system according to Claim 11, wherein the feature extraction mechanism extracts the features at multiple scales.

14. The system according to Claim 11, wherein the feature extraction mechanism extracts the features from an area of a region of interest of the image data based on a box-counting method.

15. The system according to Claim 11, wherein the feature extraction mechanism extracts the features from a volume of a region of interest of the image data based on a general Minkowski model.

16. The system according to Claim 11, wherein the classifier mechanism applies the features to linear discriminant analysis.

17. The system according to Claim 11, wherein the classifier mechanism applies the features to an artificial neural network.

18. The system according to Claim 11, wherein the fractal determination mechanism calculates a fractal dimension from a slope.

19. The system according to Claim 11, wherein the fractal determination mechanism calculates a fractal dimension from at least two slopes.

20. The system according to Claim 11, wherein the fractal determination mechanism determines a multi-fractal characteristic of the image data.

21. A computer program product storing instructions for execution on a computer system, which when executed by the computer system, causes the computer system to perform a method comprising the steps of:

extracting features from the image data;

applying the extracted features to a classifier; and

determining a fractal characteristic of the image data based on an output of the classifier.

22. The computer program product according to Claim 21, wherein the method further comprises:

associating the fractal characteristic with a risk of a disease.

23. The computer program product according to Claim 21, wherein the extracting step comprises:

determining the features at multiple scales.

24. The computer program product according to Claim 21, wherein the extracting step comprises:

determining the features from an area of a region of interest of the image data based on a box-counting method.

25. The computer program product according to Claim 21, wherein the extracting step comprises:

determining the features from a volume of a region of interest of the image data based on a general Minkowski model.

26. The computer program product according to Claim 21, wherein the applying step comprises:

applying the features to linear discriminant analysis.

27. The computer program product according to Claim 21, wherein the applying step comprises:

applying the features to an artificial neural network.

28. The computer program product according to Claim 21, wherein the determining step comprises:

calculating a fractal dimension from a slope.

29. The computer program product according to Claim 21, wherein the determining step comprises:

calculating a fractal dimension from at least two slopes.

30. The computer program product according to Claim 21, wherein the determining step comprises:

determining a multi-fractal characteristic of the image data.